

REMARKS

Upon entry of the instant amendment, claims 1, 4-13, and 18-32 will remain pending in the above-identified application and stand ready for further action on the merits.

In this Amendment, claims 14-17 have been canceled without prejudice or disclaimer of the subject matter contained therein. Claims 1, 18, and 29 have been amended. Support for amended claims 1 and 18 can be found in page 1, line 13, and page 2, lines 17-18 of the present specification. Claim 29 has been amended to further clarify the claimed invention. New claims 30-32 have been added. Support for new claim 30 can be found, for example, at page 6, line 1 of the specification. Support for new claims 31 and 32 can be found at page 6, lines 22-27 of the specification.

Accordingly, the present amendments to the claims do not introduce new matter into the application as originally filed. As such entry of the instant amendment and favorable action on the merits is earnestly solicited at present.

Rejection 35 USC § 112, 2nd Paragraph Rejection

At page 2 of the Office Action, the Examiner has rejected claim 29 under 35 U.S.C. § 112, second paragraph, as being indefinite. The rejection is respectfully traversed.

In this amendment, claim 29 has been amended to further clarify the claimed invention. Thus, upon entry of the current amendment to claim 29, the rejection has been overcome.

Accordingly, withdraw of the outstanding rejection is respectfully required at present.

Claim Rejection under 35 U.S.C. § 102

At page 3 of the Office Action, claims 1-10 and 12-19¹ have been rejected under 35 U.S.C. § 102(e) as being anticipated by Rohlf US '040 (U.S. 6,489,040). (See paragraph "9." at page 3 of the Office Action.) Applicants respectfully traverse and request that the Examiner withdraw the rejection.

Distinctions over Rohlf US '040

The present inventors have developed improved autoclave packages exhibiting increased heat resistance, which is manifested as reduced raw-edge water penetration to the fibre substrate at autoclave conditions of 100 to 250 °C (elevated temperature) and under pressure. This is accomplished by treating the substrate with a combination of a hydrophobic size, an aluminum compound and a wet-strength size, as defined in the present claims. It is noted that in order to further clarify the features of the present invention, claims 1 and 18 are amended to recite that a packaging is treaded in water vapor or that autoclaving is carried out in water vapor, respectfully.

Rohlf US '040 describes a gypsum wall board covered with sheets of paper, which may contain a neutral size (ASA or AKD), a wet strength polyamide resin and alum (see *e.g.* column 3, lines 53-63, and column 6, lines 10-20 of the reference).

However, Rohlf US '040 fails to disclose or suggest that wall boards are used for making a product package. The reference does not give any consideration to a packaging. In short, Rohlf '040 fails to disclose or suggest product packages of any sort, much less a package that can withstand autoclaving, which is typically performed in elevated temperatures and pressures.

¹ It is noted that in view of the Examiner's comments in the Office Action, claims "12-19" at page 3 of the Office Action should be read "12-29."

Rohlf US '040 merely teaches use of the paper sheets to encase a wall board, but fails to disclose or suggest a product package in general or an autoclave package in particular.

Regarding Rohlf US '040, the Examiner appears to treat the covered wallboard as a product package, and then interprets that the gypsum layer as a "product" and the covering sheets as a "package." If Applicants' understanding is correct, such an interpretation is unreasonable. A package is separable from the product contained therein and is only temporarily associated with the product (until it is used). As the Examiner should be well aware, the "product" disclosed in Rohlf US '040 includes the gypsum central layer as well as the layers bonded to both sides of the gypsum layer. Thus, the layers bonded to both sides of the gypsum layer become a permanent part of the "product."

It is noted that the claimed autoclaved product package is supposed to be opened by a consumer to retrieve the product from the package. In the wallboard "package" of Rohlf US '040, the covering sheets are adhered to the board so as to prevent delamination (see column 1, lines 21-24 of the reference), so that there is no product that can be separated (or retrieved) from the package. Further, heat is merely used for drying the covered board, which is quite deferent from autoclaving with heated steam according to the present invention, which resolves the problem of wetting of the product. Thus, the Rohlf US '040 reference fails to disclose or suggest the claimed invention.

Further, at paragraph "12." at page 5 of the Official Action ("*Response to Arguments*"), the Examiner alleges that "the applicant is arguing intended use". However, since claim 1 recites "an autoclave package containing a product therein," both "a product" and "an autoclave package" are elements of the claimed invention, not mere "intended use." Also, claim 18, which is a method claim, recites "autoclave treatment" and "autoclaving under pressure at a temperature of

100 to 250 C for a time of 5 min to 30 h.” Thus, these are not mere “intended use” but steps of method, which distinguish the present invention from Rohlf US '040.

Finally, the Examiner states “Rohlf discloses that the board is heated under pressure at temperatures of about 150-200 degrees for about 45 minutes.” (See page 3, lines 2-3 from the bottom of the Office Action.) Applicants have reviewed Rohlf US '040 and found no disclosure of “heating under pressure” in Rohlf US '040. If Applicants have overlooked such disclosure, the Examiner is requested to specifically identify where such disclosure exists.

Incidentally, an internet dictionary defines the term “package” as follows:

2. commerce **packaging for goods:** a container made of cardboard, plastic, foil, or other material in which goods are packed for sale, storage, or transportation, or a container of this type together with its contents

...

Further, that an internet dictionary defines the term “autoclave” as follows:

1. **sterilization equipment:** a strong steel vessel that can be pressurized.
Use: steam sterilization of objects, pressurized chemical reactions at high temperature.

Also, English dictionary “Webster’s II” defines the term “autoclave” as a strong, pressurized, steam-heated vessel, as for sterilization.

Therefore, Rohlf US '040 not only fails to disclose or suggest features of the present invention but also is irrelevant art to the claimed invention, which relates to and an autoclave package (claim 1) and autoclave treatment (claim 18). Thus, the present invention is not anticipated by Rohlf US '040.

Based on the foregoing, reconsideration and withdrawal of the rejection are respectfully requested.

Claim Rejections under 35 U.S.C. § 103

At pages 4-6 of the Office Action, claims 1-19² have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Penttinen US '941 (U.S. 2006/0280941) and further in view of Rohlf US '040. Applicants respectfully traverse and request that the Examiner withdraw the rejection.

The Penttinen US '941 Reference

The Penttinen US '941 reference is an intervening reference. Penttinen US '941 is a national stage application of an International application PCT/FI04/00084 (PCT '084) filed on February 23, 2004, and was published as a U.S. publication on December 14, 2006. The PCT '084 application was published in the English language as International Publication No. WO2004/074130 (WO '130) on September 2, 2004. On the other hand, the present application was filed on April 27, 2004 as an International application claiming the priorities based on Finnish patent applications (*i.e.*, FI 20030988 and FI 20030987) filed on July 1, 2003, which is earlier than the International filing date of Penttinen US '941. Thus, the Penttinen US '941 reference is potentially an intervening reference under 35 U.S.C. § 102(e).

However, 35 U.S.C. § 103 (c) (1) sets forth as follows:

² It is noted that in view of the Examiner's comments in the Office Action, claims "1-19" at page 4 of the Office Action should be read claims "1-29."

(c) (1) Subject matter developed by another person, which qualifies as prior art only under one or more of subsections (e), (f), and (g) of section 102 of this title, shall not preclude patentability under this section where the subject matter and the claimed invention were, at the time the claimed invention was made, owned by the same person or subject to an obligation of assignment to the same person. (Emphases added)

Here, it is believed that Penttinen US '941 and the present application were commonly owned or subject to an obligation of assignment at the time the claimed invention was made. (Incidentally, in the case of the present application, "STORA ENSO OYJ" is shown as an Applicant on each of the front pages of WO '130 (from which Penttinen US '941 was filed) and the International publication (*i.e.*, WO 2005/003460) of the present application.) Once this is confirmed, a Statement regarding common ownership has been filed herewith. As noted in the Statement, the claimed invention and Penttinen US '941 were, at the time the claimed invention was made, subject to an obligation of assignment to the same person (*i.e.*, "STORA ENSO OYJ") will be filed.

Accordingly, Applicants respectfully submit that the rejection under 35 USC § 103(a) has been overcome, and request that the Examiner withdraw this rejection.

CONCLUSION

Based upon the amendments and remarks presented herein, the Examiner is respectfully requested to issue a Notice of Allowance clearly indicating that each of the pending claims is allowed.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Toyohiko Konno, Reg. No. L0053 at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.17; particularly, extension of time fees.

Dated: September 28, 2009

Respectfully submitted,

By 

Gerald M. Murphy, Jr.

Registration No.: 28,977

BIRCH, STEWART, KOLASCH & BIRCH, LLP

8110 Gatehouse Road

Suite 100 East

P.O. Box 747

Falls Church, Virginia 22040-0747

(703) 205-8000

Attorney for Applicant

Attachment: Copies of Dictionaries (3 pages)

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pack drill
pack ice
pack in
pack job
pack off
pack rat
pack train
pack up
► **package**
package deal
package holiday
package insert
package mortgage
package store
package tour
packed
packed lunch

package

package

pack-age [pákij]

noun (*plural* pack-ages)

Definition:

- parcel:** an object or set of objects wrapped, boxed, or tied in a bundle for transportation or mailing
- COMMERCE packaging for goods:** a container made of cardboard, plastic, foil, or other material in which goods are packed for sale, storage, or transportation, or a container of this type together with its contents
 - *a package of chewing gum*
- different things constituting single item:** a number of different components intended to constitute a single item
 - *a good severance package*
 - *a package of financial measures*
- piece of general adaptable computer software:** a piece of computer software that can be used for a range of related purposes such as word processing or financial analysis

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key

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autobahn
autobiography
autocatalysis
autocephalous
autochanger
autochthon
autochthonous
autocidal
autoclave
autocorrelation
autocracy
autocrat
autocross
Autocue
autodeconstruction
autodestruct
autodial

autoclave

autoclave

au-to-clave [áwtō klàyv, áwtə klàyv]

noun (*plural* au-to-claves)

Definition:

1. sterilization equipment: a strong steel vessel that can be pressurized. Use: steam sterilization of objects, pressurized chemical reactions at high temperature.

2. steamer for concrete: an apparatus with which newly cast concrete is cured by steam under pressure

transitive verb (*past and past participle* au-to-claved, *present participle* au-to-clav-ing, *3rd person present singular* au-to-claves)

Definition:

place something in autoclave: to use an autoclave to steam something

[Late 19th century. < French < Greek *autos* "self" + Latin *clavus* "nail" or *clavis* "key"; because self-fastening]

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See pronunciation
key

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"autoclave" in all of
MSN Encarta

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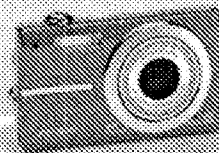
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ment or ornamentation: simple or plain. —**au-ster-ly** adv. —**au-ster-ness** n.

austerity (ô-stēr'ə-tē) n., pl. **-ties**. 1. The quality of being austere. 2. Severe and rigid economy. 3. An austere habit or practice.

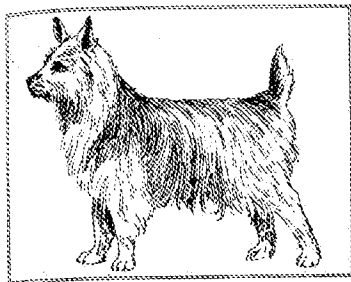
austral (ô-strəl) adj. [**< ME auster, south wind < Lat. >**] Of, relating to, or coming from the south.

Australian (ô-strāl'yən) n. 1. A native or resident of the Commonwealth of Australia. 2. An aborigine of Australia. 3. Any of the languages of the Australian aborigines. —**adj.** 1. Of or relating to Australia, its inhabitants, or their languages or cultures. 2. Ecol. Of or designating the zoogeographic region that includes Australia and the islands adjacent to it, including New Guinea.

Australian ballot n. A printed ballot bearing the names of all candidates and the texts of propositions or referendums that is distributed to the voter at the polls and marked in secret.

Australian crawl n. A variation of the crawl that is executed with a flutter kick to each stroke.

Australian terrier n. A small dog orig. bred in Australia, with a coarse blackish coat marked with tan.



Australian terrier
10 inches high at shoulder

Aus-tra-loid (ô-strə-loid') adj. [**AUSTRAL(IAN) + -OID**] Of or relating to an ethnic group that includes the Australian aborigines. —**Aus-tra-loid** n.

australopithecine (ô-strā'lō-pīth'ē-sīn') n. [**< NLat. Australopithecus: Lat. australis, southern + pithecus, ape < Gk. pithēkos**] Any of several extinct humanlike primates of the genera *Australopithecus*, *Paranthropus*, or *Zinjanthropus*, known chiefly from Pleistocene fossil remains found in southern and eastern Africa. —**adj.** Of, relating to, or typical of the australopithecines.

Austro- pref. [**< Lat. auster, south**] Southern [**< Austro-Asiatic >**].

Austro- pref. Austria: Austrian [**< Austro-Hungarian >**].

Austro-Asiatic (ô-strō-ā-zhē-ā'tīk) n. A family of languages of southeastern Asia once dominant in northeastern India and Indochina. —**Austro-Asiatic** adj.

Austro-nesian (ô-strō-nē-zhən, -shən) adj. Of or relating to Austronesia, its peoples, or their languages. —n. A family of languages spoken in Austronesia that includes the Indonesian, Melanesian, Micronesian, and Polynesian subfamilies.

autacoid also **auto-coid** (ô-tă-koid') n. [**AUT(O) + Gk. akos, cure + -OID**] An organic substance, as a hormone, formed in an organ and secreted into the blood, lymph, or sap, from which it acts on other parts of the organism. —**auto-coidal** (-koid'l) adj.

autarchy (ô-tăr'kē) n., pl. **-chies**. [**Gk. autarkhia < autarkhos, self-governing: autos, self + arkhos, ruler**] 1. a. Complete control or power: AUTOCRACY. b. A country under autarchic rule. 2. Autarky. —**autar'chic, autar'chical** adj.

autarky (ô-tăr'kē) n., pl. **-kies**. [**Gk. autarkeia, self-sufficiency < autarkēs, self-sufficient: autos, self + arkein, to suffice**] 1. A national policy of self-sufficiency and nonreliance on imports or economic aid. 2. A self-sufficient country or region. —**autar'kic, autar'kical** adj.

autecology (ô-tī-kōl'ô-jē) n. The ecology of a species or of individual organisms in relation to the environment. —**autecolog'i-cal** adj.

authentic (ô-thēn'tīk) adj. [**ME autentik < OFr. autentique < Llat. authenticus < Gk. authentikos < authentēs, author**] 1. a. Conforming to fact and therefore worthy of trust, reliance, or belief. b. Having an undisputed origin: GENUINE. 2. Law. Executed with due process of law. 3. Mus. a. Designating a medieval mode having a range from its final tone to the octave above it. b. Designating a cadence with the dominant chord immediately preceding the tonic chord. 4. Obs. Authoritative. —**authen'ti-cally** adv. —**authen'tic-ity** (ô-thēn-tis'ô-tē) n.

authentic-ate (ô-thēn'tī-kāt') vt. **-cat-ed, -cat-ing, -cates**. To establish or prove as authentic. —**authen'ti-ca-tion** n. —**authen'ti-ca-tor** n.

author (ô-thər) n. [**ME authour < OFr. auctor < Lat. auctor, creator < augēre, to create**] 1. a. The original writer of a literary work. b. One who writes as a profession. 2. a. An originator or creator.

b. Author. GOD la. —vt. **-thored, -thoring, -thors**. 1. To be the author of: WRITE. 2. To originate: create.

authoritarian (ô-thōr'i-tār'ē-ən, ô-thōr', ô-) adj. Marked by or advocating absolute obedience to authority. —**author'i-tar-i-an** n. —**author'i-tar-i-an-ism** n.

authoritative (ô-thōr'i-tā'tiv, ô-thōr', ô-) adj. 1. Having or arising from proper authority: OFFICIAL. 2. Exercising authority: COMMANDING. —**author'i-ta-tive-ly** adv. —**author'i-ta-tive-ness** n.

authority (ô-thōr'i-tē, ô-thōr', ô-) n., pl. **-ties**. [**ME authority < OFr. autorite < Lat. auctoritas < auctor, creator**] 1. a. The right and power to command, enforce laws, exact obedience, determine, or judge. b. A person or group invested with this right and power. c. The officials of a political unit having such right and power: GOVERNMENT. 2. Freedom or right granted to another: AUTHORIZATION. 3. A public agency or corporation with administrative powers in a specified field [**< a maritime authority >**]. 4. a. An accepted source of expert information or advice. b. A quotation or citation from such a source. 5. An expert in a given field. 6. Power to influence or persuade resulting from knowledge or experience [**< could speak with authority >**]. 7. Grounds for a course of action. 8. An authoritative statement or decision that may be taken as a precedent.

authorization (ô-thōr-i-zā'shən) n. 1. The act of authorizing. 2. Something that authorizes: SANCTION.

authorize (ô-thā-rīz') vt. **-ized, -izing, -izes**. [**ME autorizen < OFr. autoriser < Med. Lat. autorizare < Lat. auctor, author**] 1. To give authority or power to. 2. To approve or permit: SANCTION. 3. To be sufficient grounds for: JUSTIFY. —**author'izer** n.

Authorized Version n. The King James Bible.

authorship (ô-thər-ship') n. 1. The profession or occupation of writing. 2. An origin or source.

autism (ô-tīz'əm) n. 1. Acceptance of fantasy rather than reality: abnormal subjectivity. 2. A form of childhood schizophrenia marked by acting out and withdrawal. —**autis'tic** (-tik) adj. & n.

auto (ô-tō) [Short for AUTOMOBILE.] Informal. —n., pl. **-tos**. An automobile. —vi. **-toed, -toing, -tos**. To go by automobile.

auto- pref. [**Gk. < autos, self**] 1. Self: same [**< autogamy >**]. 2. Automatic [**< autopilot >**].

auto-anti-body (ô-tō-ān'ti-bōd'ē) n., pl. **-ies**. An antibody believed to act against cells of the organism in which it is formed.

auto-bahn (ou'tō-bān') n. [**G. : auto, automobile + Bahn, road**]. A superhighway in Germany.

auto-bi-ography (ô-tō-bī-ô-grā-fē, -bē-ô-grā-fē) n., pl. **-phies**. The biography of a person written by himself or herself. —**au'to-bi-og'raph-er** n. —**au'to-bi-og'raphic** (-bī-ô-grāf'ik), **au'to-bi-og'raph'i-cal** adj. —**au'to-bi-og'raph'i-cally** adv.

auto-bus (ô-tō-būs') n., pl. **-buses** or **-busses**. BUS 1.

auto-catalysis (ô-tō-kā-tāl'i-sis) n., pl. **-ses** (-sēz'). Catalysis of a chemical reaction by one of the products of the reaction. —**au'to-cat'a-ly'tic** adj.

autochthon (ô-tōk'thən) n., pl. **-thons** or **-thones** (-thā-nēz') [**Gk. autokthōn: autos, self + kthōn, earth**] 1. The first known or aboriginal inhabitant of a particular place. 2. Ecol. An indigenous animal or plant.

autochthonous (ô-tōk'thə-nəs) also **autochthonal** (-nəl) or **autochthonic** (-thōn'ik) adj. Native to a certain place: INDIGENOUS. —**autoch'thon-ism, autoch'tho-ny** n. —**autoch'tho-nous-ly** adv.

auto-clave (ô-tō-klāv') n. [**Fr. : auto-, auto- + Lat. clavis, key**] A strong, pressurized, steam-heated vessel, as for sterilization.

auto-coid (ô-tă-koid') n. var. of AUTACOID.

autoc-racy (ô-tōk'rā-sē) n., pl. **-cies**. 1. Government by an individual having unlimited power: DESPOTISM. 2. A country or state governed by autocracy.

auto-cratic (ô-tă-kra'tīk) n. [**Fr. autocrate < Gk. autokratēs, ruling by oneself: auto-, self + kratos, authority**] 1. A ruler having absolute or unlimited power: DESPOT. 2. A person with unrestricted power or authority. —**auto-cratic, auto-cratic-al** adj. —**au'to-cratic-ally** adv.

auto-cross (ô-tō-kros', -krōs') n. A competition for automobiles that tests driving skill and speed.

auto-da-fé (ou'tō-dā-fā, ô-tō-) n., pl. **au-tos-da-fé** (ou'tōz, ô-tōz-) [**Port. auto da fé, act of the faith**] 1. The public announcement of the sentences imposed on persons tried by the Inquisition and the public execution of these sentences by the secular authorities. 2. The burning of heretics at the stake.

auto-di-dact (ô-tō-dī'dakt') n. [**< Gk. autodidaktos, self-taught: autos, self + didaktos, taught**] —see DIDACTIC. A self-taught person. —**au'to-di-dac'tic** adj.

auto-dyne (ô-tō-dīn') n. A heterodyne in which one tube serves simultaneously as oscillator and detector. —**au'to-dyne'** adj.

auto-e-cious (ô-tē-shəs) adj. [**AUTO- + Gk. oikos, house**] Biol. Having all stages of a life cycle occur on the same host. —**au'toe-cism** n.

auto-erotism (ô-tō-ēr'ô-tīz'əm) also **auto-erot-i-cism**